



Quick Guide to the Seeds of Success Protocol

Program Goals

The goal of SOS is to establish high quality, accurately identified, genetically representative and well documented native plant seed collections. This material will be used to support the development of geographically appropriate native plant materials for restoration and emergency fire rehabilitation.

Targeted Species

The collection focus of the SOS program is on species needed for restoration and rehabilitation projects, also called the “restoration list”. Teams may make multiple collections of species on their restoration target list as long as they are capturing unique populations in each collection. Collecting teams are encouraged to work with local federal land managers and the National Coordinating Office to develop and execute priority target lists.

Sampling Protocol

- Only collect from wild populations
- Sample from at least 50 individuals, document the number of individuals sampled on the SOS Field Data Form
- Material collected on multiple dates can be added to the same accession throughout an entire growing season, so long as no more than 20% of the ripe seed is collected from the population on a single day
- An ideal collection is 10,000+ seed
- Different populations are kept as separate accessions
- Materials collected from the same population during multiple growing seasons should be kept as separate accessions

Field Documentation

The SOS Field Data Form

Use the Field Data Form (*Appendix 2*) for each seed collection and fill out **all** data fields. Keep one copy of the completed forms for your records and send one copy with your seed to the Bend Seed Extractory or partner cleaning facility. Also, email one copy to the SOS National Coordinating Office.

Photographs

Three digital photographs for each collection shall be sent to the National Coordinating Office. One photo each of the material collected (seed), the individual plant, and the plant population (habitat). These can be sent electronically or all on a single CD or DVD at the end of the collection season. Naming convention: {PLANTS Code_Seed Collection Reference Number_Picture Number}. Example:

NSNWR's collection of *Symphyotrichum lanceolatum* (PLANTS Code = SYLA6)

SYLA6_NSNWR-419_A.jpg

SYLA6_NSNWR-419_B.jpg

SYLA6_NSNWR-419_C.jpg

Herbarium Vouchers

Three specimens shall be collected as a record of each SOS collection.

1. U.S. National Herbarium (see Contacts for address)
2. One to a regional herbarium (see *Appendix 6* for list)
3. One to keep at your field office

Shipping and Cleaning

Most federal SOS partners send their seed to the Bend Seed Extractory (see Contacts for address) for cleaning. Please notify the Bend Seed Extractory that seeds will be shipped and always send the seeds overnight mail or with FedEx. Include a copy of the completed field data forms documenting the collection with all shipments of seed; material will not be cleaned without this documentation.

Long-term Storage and Distribution

Accessions are sub-divided for -20°C back-up storage at the Western Regional Plant Introduction Station in Pullman, WA and the National Center for Genetic Resources Preservation in Fort Collins, CO (Table 1). If seed quantity is sufficient, a distribution component is included in the 4°C working collection as outlined below. Any seed over 10,000 will remain at the Bend Seed Extractory and may be requested for specific projects. Contact the National Coordinating Office for more information.

Table 1. Seeds of Success germplasm proportioning for long-term back-up and working collection samples.

SOS accession seed quantity	Ratio to long-term storage at NCGRP -20°C	Ratio to long-term storage at WRPIS -20°C	Ratio to working collection 4°C
< 6,000	1/2	1/2	0
6,000 – 7,500	2/5	2/5	1/5
7,500 – 10,000	1/3	1/3	1/3

Training and Resources

- Seeds of Success Website: www.blm.gov/sos
- Seeds of Success Listserv: Instructions for joining the listserv are available on the SOS website
- Training Course: “Seed Collection for Restoration and Conservation” is offered annually. Please contact the National Coordinating Office for more information.
- Collectors Call: On the first Tuesday of every month, collectors are invited to participate in the Collectors’ Call, a conference call for all SOS Partners. This is a forum for discussion with other collectors and raising issues and questions.

Collectors’ Call Times

12 pm Eastern / 11 am Central / 10 am Mountain / 9 am Pacific / 8 am Alaska

Contacts

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